

REMARKS

At the outset, Applicants acknowledge with appreciation Examiner Pruchnic's and Supervisory Patent Examiner Gutierrez's courtesy in conducting the November 17, 2005 personal interview. During the interview, Applicant, Applicants' representatives, Examiner Pruchnic and Supervisory Patent Examiner Gutierrez discussed proposed claim amendments that would overcome the rejections of record of independent claims 1, 10 and 12 under 35 U.S.C. §§ 102(b) and 103(a).

Claims 1-7 and 9-12 are pending in this application. Claims 1, 4-6, 10, and 12 have been amended. No new matter has been added.

Claims 4 and 6 have been amended to be written in independent form.

Claims 1 and 12 stand objected to because of informalities. Claims 1 and 12 have been amended to address the problems discussed by the Examiner in the October 11, 2005 Office Action. As such, applicant respectfully submits that the objections be withdrawn.

Claims 1, 3 and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Nishio et. al. (US Patent No. 3,913,058 A) (Nishio). Independent claims 1 and 10 have been amended and as amended are not anticipated by Nishio. Reconsideration is respectfully requested.

Nishio is related to a thermosensor that has "improved vibration resistance and sensitivity and is used for measuring the temperature in furnaces, exhaust pipes of gasoline engine[s] and the like." (Abstract). Nishio does not disclose all limitations of amended claims 1, 3, and 10. More specifically, Nishio is silent about "*conducting in a process stream at least one endothermic catalyzing steam reforming reaction, wherein the layer*

of catalytic material is active in the at least one endothermic catalyzing steam reforming reaction" and about "*inserting the thermowell into a reactor wall*, which is part of a reactor, so that a tip of the thermowell does not penetrate an inner chamber of the reactor" in claim 1 (emphasis added). Nishio is also silent about a "thermowell is inserted into a reactor wall, which is part of a reactor, so that a tip of the thermowell does not penetrate an inner chamber of the reactor" in claim 10. Nishio does not disclose an "endothermic catalyzing steam reforming reaction" as is required by amended claim 1. Nishio also does not disclose "inserting the thermowell into a reactor wall so that a tip of the thermowell does not penetrate an inner chamber of the reactor" as is required by amended claims 1 and 10. For at least these reasons, Nishio fails to anticipate the subject matter of amended independent claims 1 and 10, and withdrawal of the rejection of claims 1, 3, and 10 is respectfully requested.

Claims 2 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishio. Reconsideration is respectfully requested. As discussed in the previous paragraph, all limitations of independent claim 1 are not disclosed in Nishio. For this reason, dependent claims 2 and 11 are not unpatentable over Nishio. As such, applicant respectfully submits that the rejection be withdrawn.

Claims 1, 3, 5, 7, 9, 10 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schliephake et. al. (US Patent No. 6,333,011 B1) (Schliephake) in view of Agee et. al. (US Patent No. 6,277,894 B1) (Agee). Reconsideration is respectfully requested.

The claimed invention relates to a method for measurement of high temperatures of a process stream and to a temperature measurement instrument. As such, amended independent claims 1 and 12 recite a "method for measurement of high

temperatures of a process stream” by *inter alia* “providing a thermocouple arranged in a thermowell, wherein a layer of catalytic material is formed on and at least partly covers the thermowell” Claims 1 and 12 also recite “conducting in a process stream at least one endothermic catalyzing steam reforming reaction, wherein the layer of catalytic material is active in the at least one endothermic catalyzing steam reforming reaction.” Additionally, claims 1 and 12 recite “inserting the thermowell into a reactor wall, which is part of a reactor, so that a tip of the thermowell does not penetrate an inner chamber of the reactor.”

Amended independent claim 10 recites a “temperature measurement instrument comprising a thermocouple inserted in a thermowell, wherein a layer of catalytic material is formed on and at least partly covers the thermowell, and wherein the layer of catalytic material is active in at least one endothermic catalyzing steam reforming reaction, and wherein the thermowell is inserted into a reactor wall, which is part of a reactor, so that a tip of the thermowell does not penetrate an inner chamber of the reactor.”

The Examiner states that the thermotubes (col. 3, lines 4-8) of Schliephake are “in a catalyst bed, filled with catalyst particles,” and therefore are “considered to be in contact with catalyst on their outer surfaces, therefore ‘covered’ by a layer of catalytic material.” (Office Action, page 3). Agee discloses a production of syngas using a two step autothermal reforming process and does not discuss temperature measuring devices. Newly amended independent claims 1, 10 and 12 require the “layer of catalytic material *is formed on* and at least partly covers the thermowell.” (emphasis added). Additionally, the claims as amended require that the thermowell be inserted into a reactor wall without penetrating an inner chamber of the reactor. Schliephake and Agee, alone or in combination, do not teach or suggest these limitations of

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amended independent claims 1, 10 and 12. As such, withdrawal of the rejection of claims 1, 3, 5, 7, 9, 10 and 12 is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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